WHAT IS CLAIMED IS:

1. A dental prosthesis comprising a bulk-solidifying amorphous alloy having an elastic strain limit of around 1.2% or more.

2. The dental prosthesis as described in claim 1, wherein the bulk bulk-solidifying amorphous alloy is described by the following molecular formula: $(Zr,Ti)_a(Ni,Cu,Fe)_b(Be,Al,Si,B)_c$, wherein "a" is in the range of from about 30 to 75, "b" is in the range of from about 5 to 60, and "c" in the range of from about 0 to 50 in atomic percentages

3. The dental prosthesis as described in claim 1, wherein the bulk-solidifying amorphous alloy is described substantially by the following molecular formula: $(Zr)_a(Nb,Ti)_b(Ni,Cu)_c(Al)_d$, where a is in the range of from 45 to 65, b is in the range of from 0 to 10, c is in the range of from 20 to 40, and d in the range of from 7.5 to 15 in atomic percentages.

4. A dental prosthesis as described in claim 1, wherein the bulk-solidifying amorphous alloy has an elastic strain limit of around 1.8% or more.

5. The dental prosthesis as described in claim 1, wherein the bulk-solidifying amorphous alloy has a high fracture toughness of at least about 10 ksi-$\sqrt{in}$.

6. The dental prosthesis as described in claim 1, wherein the bulk-solidifying amorphous alloy has a coefficient of thermal expansion of around 10^{-5} (m/m °C) or less.

7. The dental prosthesis as described in claim 1, wherein the bulk-solidifying amorphous alloy has a high hardness value of at least about 4 Gpa.

8. The dental prosthesis as described in claim 1, wherein the bulk-solidifying amorphous alloy has a high hardness value of at least about 5.0 GPa.

9. The dental prosthesis as described in claim 1, wherein the bulk-solidifying amorphous alloy is based on ferrous metals.

10. The dental prosthesis as described in claim 9, wherein the bulk-solidifying amorphous alloy has a hardness of about 7.5 Gpa and higher.

11. The dental prosthesis as described in claim 1, wherein the bulk-solidifying amorphous alloy has a glass transition temperature lower than 400 °C.

12. The dental prosthesis 1 as described in claim 1, wherein the bulk-solidifying amorphous alloy further comprises a ductile metallic crystalline phase precipitate.

13. The dental prosthesis as described in claim 1, wherein the bulk-solidifying amorphous alloy is Al free.

14. The dental prosthesis as described in claim 1, wherein the bulk-solidifying amorphous alloy is Ni free.

15. The dental prosthesis as described in claim 1, wherein the bulk-solidifying amorphous alloy is Be free.

16. The dental prosthesis as described in claim 1, wherein at least a portion of the prosthesis is constructed of a conventional dental material.

17. The dental prosthesis as described in claim 1, wherein the dental prosthesis is coated with a biocompatible resin cement.

18. The dental prosthesis as described in claim 17, wherein the cement is reinforced with a metal primer agent and an oxide selected from the group consisting of alumina, magnesia, zirconia, and a combination of these oxides.

19. The dental prosthesis as described in claim 1, wherein the at least one portion formed from the bulk-solidifying amorphous alloy has a section thickness of at least 0.5 mm.

20. The dental prosthesis as described in claim 1, wherein the dental prosthesis is in the form of one of either a bridge or a cap.

21. A method of manufacturing a dental prosthesis comprising:

providing a feedstock of a bulk-solidifying amorphous alloy;

heating the feedstock to above the melting temperature of the bulk solidifying amorphous alloy to form a molten alloy;

shaping the molten alloy to form a near-to-net shape dental prosthesis; and

quenching the dental prosthesis at a cooling rate sufficient to ensure that the bulk solidifying amorphous alloy has a substantially amorphous atomic structure having an elastic strain limit of around 1.2% or more.

22. The method as described in claim 21, wherein the step of heating includes superheating the feedstock to a temperature at least 100 °C higher than the melting temperature of the bulk solidifying amorphous alloy.

23. The method as described in claim 21, wherein the step of heating is conducted in an inert environment.

24. The method as described in claim 21, wherein the step of heating is conducted under a vacuum.

25. The method as described in claim 21, wherein the bulk-solidifying amorphous alloy is described by the following molecular formula: $(Zr,Ti)_a(Ni,Cu, Fe)_b(Be,Al,Si,B)_c$, wherein "a" is in the range of from about 30 to 75, "b" is in the range of from about 5 to 60, and "c" in the range of from about 0 to 50 in atomic percentages

26. The method as described in claim 21, wherein the bulk-solidifying amorphous alloy is described substantially by the following molecular formula: $(Zr)_a (Nb,Ti)_b (Ni,Cu)_c(Al)_d$, where a is in the range of from 45 to 65, b is in the range of from 0 to 10, c is in the range of from 20 to 40, and d in the range of from 7.5 to 15 in atomic percentages.

27. The method as described in claim 21, wherein the bulk-solidifying amorphous alloy has a coefficient of thermal expansion of around 10^{-5} (m/m °C) or less.

28. The method as described in claim 21, wherein the bulk-solidifying amorphous alloy further comprises a ductile metallic crystalline phase precipitate.

29. The method as described in claim 21, wherein the bulk-solidifying amorphous alloy is based on ferrous metals having a hardness of about 7.5 Gpa and higher.

30. The method as described in claim 21, wherein the bulk-solidifying amorphous alloy has a glass transition temperature lower than 400 °C.

31. The method as described in claim 21, wherein a portion of the dental prosthesis is constructed of a conventional dental material.

32. The method as described in claim 21, further comprising the step of coating the dental prosthesis with a biocompatible resin cement.

33. The method as described in claim 32, wherein the cement is reinforced with a metal primer agent and an oxide selected from the group consisting of alumina, magnesia, zirconia, and a combination of these oxides.

34. The method as described in claim 21, wherein the step of shaping comprises one of the methods selected from the group consisting of: molding, casting and investment casting.

35. The method as described in claim 21, wherein the bulk solidifying amorphous alloy has a critical cooling rate of 100 °C/second or less.

36. The method as described in claim 1, wherein the dental prosthesis is shaped into the form of one of either a bridge or a cap.